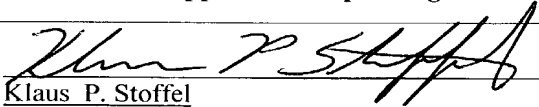


JC18 Rec'd PCT/PTO 30 NOV 2001

FORM PTO-1390 (REV 10-94)		U S DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		DOCKET #: 5085-19PUS
<b>TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371</b>				
				U.S. APPLICATION NO. (If known, see 37 CFR 1.5) <b>097980968</b>
INTERNATIONAL APPLICATION NO <b>PCT/EP00/04368</b>		INTERNATIONAL FILING DATE <b>May 16, 2000</b>		PRIORITY DATE CLAIMED <b>June 01, 1999</b>
TITLE OF INVENTION <b>Method For Producing A Cyanide-Free Solution Of A Gold Compound That Is Suitable For Galvanic Gold Baths</b>				
APPLICANT(S) FOR DO/EO/US <b>Gerhard HOFFACKER; Renate FRANZ; Ramona REITZ; Richard WALTER;</b>				
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:				
<ol style="list-style-type: none"> <li><input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a filing under 35 U.S.C. 371.</li> <li><input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a filing under 35 U.S.C. 371</li> <li><input checked="" type="checkbox"/> This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).</li> <li><input checked="" type="checkbox"/> A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.</li> <li><input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))           <ol style="list-style-type: none"> <li><input checked="" type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau).</li> <li><input type="checkbox"/> has been transmitted by the International Bureau.</li> <li><input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US)</li> </ol> </li> <li><input checked="" type="checkbox"/> A translation of the International Application into English (35 U.S.C. 371(c)(2)).</li> <li><input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))           <ol style="list-style-type: none"> <li><input type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau).</li> <li><input type="checkbox"/> have been transmitted by the International Bureau.</li> <li><input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li><input type="checkbox"/> have not been made and will not be made.</li> </ol> </li> <li><input type="checkbox"/> A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</li> <li><input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</li> <li><input type="checkbox"/> A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</li> </ol>				
<b>Items 11. to 16. Below concern other document(s) or information included:</b>				
11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.				
12. <input checked="" type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.				
13. <input checked="" type="checkbox"/> A <b>FIRST</b> preliminary amendment. <input type="checkbox"/> A <b>SECOND</b> or <b>SUBSEQUENT</b> preliminary amendment.				
14. <input type="checkbox"/> A substitute specification.				
15. <input type="checkbox"/> A change of power of attorney and/or address letter.				
16. <input checked="" type="checkbox"/> Other items or information ( <i>specify</i> ): PCT Publication Sheet, Int'l Preliminary Examination Report, Int'l Search Report, Written Notification, Notification Concerning Submission or Transmittal of Priority Document				

U.S. APPLICATION NO. (if known, see 37 CFR 1.5) <b>09/980968</b>		INTERNATIONAL APPLICATION NO. <b>PCT/EP00/04368</b>		ATTORNEY'S DOCKET NUMBER <b>5085-19PUS</b>	
17.[x] The following fees are submitted:					
<b>Basic National Fee (37 CFR 1.492(a)(1)-(5)):</b> Search Report has been prepared by the EPO or JPO ..... <b>\$890.00</b> International preliminary examination fee paid to USPTO (37 CFR 1.482)..... <b>\$710.00</b> No international preliminary examination fee paid to USPTO (37 CFR 1.482) but international search fee paid to USPTO (37 CFR 1.445(a)(2)) ..... <b>\$740.00</b> Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO ..... <b>\$1040.00</b> International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4)..... <b>\$100.00</b>					
ENTER APPROPRIATE BASIC FEE AMOUNT =				\$	
Surcharge of <b>\$130.00</b> for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$	
Claims	Number Filed	Number Extra	Rate		
Total Claims	10- 20 =	0	x <b>\$18.00</b>	\$	
Independent Claims	4- 3 =	1	x <b>\$84.00</b>	<b>\$84</b>	
Multiple dependent claim(s) (if applicable)			+ <b>\$280.00</b>	\$	
<b>TOTAL OF ABOVE CALCULATIONS =</b>				\$	
Reduction of ½ for filing by small entity, if applicable.				\$	
<b>SUBTOTAL =</b>				<b>\$974</b>	
Processing fee of <b>\$130.00</b> for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$	
<b>TOTAL NATIONAL FEE =</b>				<b>\$974</b>	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by the appropriate cover sheet (37 CFR 3.28, 3.31). <b>\$40.00</b> per property				\$	
<b>TOTAL FEES ENCLOSED</b>				<b>\$974</b>	
				Amount to be refunded:	\$
				charged:	\$
a. <input checked="" type="checkbox"/> One Credit Card Payment Form in the amount of \$ <u>974</u> to cover the above fees is enclosed. b. <input type="checkbox"/> Please charge my Deposit Account No. <u>03-2412</u> in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>03-2412</u> . A duplicate copy of this sheet is enclosed.					
<b>NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive          (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.</b>					
SEND ALL CORRESPONDENCE TO: <u>Klaus P. Stoffel</u> Cohen, Pontani, Lieberman & Pavane 551 Fifth Avenue, Suite 1210 New York, New York 10176			 <u>Klaus P. Stoffel</u> Registration Number: 31,668 November 30, 2001 Tel: (212) 687-2770		

09/1980968

By Express Mail  
No. EL 913696010 US

JC13 Rec'd PCT/PTO 30 NOV 2001

# TRANSLATION CERTIFICATION

This is a complete and accurate translation by us, to the best of our knowledge and ability, from German into English of:

WO 00/73,540 A1; PCT/EP00/04,368

FRANK C. FARNHAM COMPANY, INC.

By:

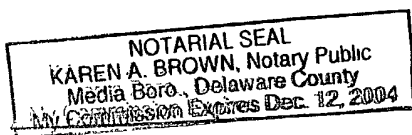
*Frank C. Farnham*

Name: Frank C. Farnham

Its: General Manger

Sworn and subscribed to before me this 5th day of November 2001.

Notary Public



FRANK C. FARNHAM COMPANY, INC.

Express Mail No. EL 913696010 US November 29, 2001

Attorney Docket # 5085-19PUS

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re National Phase PCT Application of

Gerhard HOFFACKER et al.

International Appln. No.: PCT/EP00/04368

International Filing Date: May 16, 2000

For: Method For Producing A Cyanide-Free Solution  
Of A Gold Compound That Is Suitable For  
Galvanic Gold Baths

**PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents  
2900 Crystal Drive  
Arlington, VA 22202-3550  
**BOX PCT**

S I R:

Prior to the issuance of a first Office Action and simultaneously with the filing of the present application, please amend said application as follows:

**In the Specification:**

Page 1, after line 2 insert --BACKGROUND OF THE INVENTION--;  
after line 20 insert --SUMMARY AND DESCRIPTION OF THE  
INVENTION--;

Express Mail No. EL 913696010 US November 29, 2001

delete line 26.

Page 2, delete lines 1 and 2.

Page 3, after line 8, insert --EXAMPLE--.

In the Claims:

Please delete claims 1 to 11 and add the following new claims:

12. A method for producing a cyanide-free solution of a gold compound that is suitable for gold electrodeposition baths, comprising the steps of:

(a) reacting at least one of a cysteine and a cysteinate with at least one of tetrachloroauric acid and a tetrachloroaurate in a first aqueous medium;

(b) separating a resulting precipitate from the first aqueous medium;  
and

(c) dissolving the precipitate in a second aqueous medium with elevation of the pH to 12.0-14.0.

13. A method in accordance with claim 12, and further comprising the step of washing the separated precipitate until it is free of chloride.

14. A method in accordance with claim 12, wherein the molar ratio of cysteine/cysteinate to the tetrachlorogold compound is 3.1 to 10.1.

15. A method in accordance with claim 12, including carrying out the reacting step at a temperature of  $T < +30^{\circ}\text{C}$ .

16. A method in accordance with claim 12, wherein the dissolving step includes raising the pH to 13.5.

17. A method in accordance with claim 12, wherein the reacting step includes using potassium L-cysteinate as the cysteinate.

18. A solution of a gold compound produced by:

- (a) reacting at least one of a cysteine and a cysteinate with at least one of tetrachloroauric acid and a tetrachloroaurate in a first aqueous medium;
- (b) separating a resulting precipitate from the first aqueous medium;

and

- (c) dissolving the precipitate in a second aqueous medium with elevation of the pH to 12.0-14.0.

19. A gold electrodeposition bath comprising a solution of a gold compound produced by:

(a) reacting at least one of a cysteine and a cysteinate with at least one of tetrachloroauric acid and a tetrachloroaurate in a first aqueous medium;

(b) separating a resulting precipitate from the first aqueous medium;  
and

(c) dissolving the precipitate in a second aqueous medium with elevation of the pH to 12.0-14.0.

20. A method for producing a solution of a gold compound that is suitable for gold electrodeposition gold baths as a precursor for production of gold-containing heterogeneous catalysts, the method comprising the steps of:

(a) reacting at least one of a cysteine and a cysteinate with at least one of tetrachloroauric acid and a tetrachloroaurate in a first aqueous medium;

(b) separating a resulting precipitate from the first aqueous medium;  
and

(c) dissolving the precipitate in a second aqueous medium with elevation of the pH to 12.0-14.0.

09300962 121901

Express Mail No. EL 913696010 US November 29, 2001

In the Abstract:

Please add the attached abstract to the end of the application.



Express Mail No. EL 913696010 US November 29, 2001

**REMARKS**

The present amendment is submitted prior to the issuance of a first Office Acton and simultaneously with the filing of the present application.

With this amendment applicants have amended the specification, cancelled claims 1 to 11 and added new claims 12 to 20, all in an effort to place the application in better condition for examination.

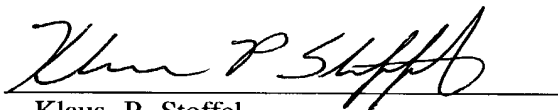
Favorable action on the present application is respectfully requested.

Any additional fees or charges required at this time in connection with the application may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,

COHEN, PONTANI, LIEBERMAN & PAVANE

By:



Klaus P. Stoffel  
Reg. No. 31,668  
551 Fifth Avenue, Suite 1210  
New York, N.Y. 10176  
(212) 687-2770

30 November 2001

**ABSTRACT OF THE DISCLOSURE**

A method for producing a cyanide-free solution of a gold compound that is suitable for gold electrodeposition baths. The method includes the steps of reacting at least one of a cysteine and a cysteinate with at least one of tetrachloroauric acid and a tetrachloroaurate in a first aqueous medium, separating a resulting precipitate from the first aqueous medium, and dissolving the precipitate in a second aqueous medium with elevation of the pH to 12.0-14.0.

09/280968

By Express Mail  
No. EL 913696010 US

JC13 Rec'd PCT/PTO 30 NOV 2001

TRANSLATION (5085-19PUS):

WO 00/73,540 A1

PCT/EP00/04,368

METHOD FOR PRODUCING A CYANIDE-FREE SOLUTION OF A GOLD COMPOUND  
THAT IS SUITABLE FOR GOLD ELECTRODEPOSITION BATHS

The invention concerns a method for producing a cyanide-free solution of a gold compound that is suitable for gold electrodeposition baths, a gold compound solution produced by this method, and its uses.

The use of cyanide-containing solutions of gold compounds as baths for the electrodeposition of gold on objects has long been known. Due to the high toxicity of the cyanide ions that are used and of the hydrocyanic acid that is liberated under certain conditions, the use of this well-known process is associated with considerable safety problems.

Furthermore, solutions of gold compounds for electrodeposition baths are known from the state of the art, but they have the disadvantage of decomposing after a certain amount of time. A solution of ammonium disulfitoaurate is cited as a typical example of this.

JP 10[1998]-317,183 A describes, among other things, a mercaptocarboxylic acid gold-plating bath that contains one or more of the following components: an alkali metal salt or ammonium salt of an acetylcysteine gold complex, a cysteine gold complex, a mercaptosuccinic acid gold complex, a gold chloride, and a sulfur-containing gold complex. However, these solutions also suffer from the disadvantage that they decompose after a certain amount of time.

This presents the problem of at least partially eliminating the disadvantages mentioned above with the aid of a new type of method, a new type of solution of gold compounds, and suitable applications. The crux of the problem is the development of a method for producing a stable, cyanide-free solution of a gold compound that is suitable for gold electrodeposition baths.

In accordance with the invention, this problem is solved by a method in

accordance with Claim 1, a gold compound solution in accordance with Claim 7, and applications in accordance with Claims 8-11.

In the first step of the method of the invention, a cysteine and/or cysteinate is reacted in a first aqueous medium, especially water, with tetrachloroauric acid and/or a tetrachloroaurate. Potassium cysteinate and sodium cysteinate are examples of the cysteinate that may be used, and sodium tetrachloroaurate and potassium tetrachloroaurate are examples of suitable tetrachloroaurates.

In the second step of the method, the precipitate that forms in the first step is separated from the first aqueous medium. This separation can be effected, for example, by repeated centrifugation and decanting of the supernatant liquid.

Finally, the precipitate is dissolved in a second aqueous medium, for example, in water, by addition, for example, of a potassium hydroxide solution, which at the same time raises the pH to 12.0-14.0.

The solutions of gold compounds obtained in this way are stable for several weeks when stored with the exclusion of light and air and have outstanding properties for gold electrodeposition baths.

The following variations have been found to be practically effective and thus especially advantageous:

The separated precipitate is washed until it is free of chloride.

The molar ratio of cysteine/cysteinate to the tetrachlorogold compound is 3:1 to 10:1. Experience shows that a molar ratio of 3:1 produces the highest yields.

The reaction is advantageously carried out at a temperature of  $T < +30^{\circ}\text{C}$ , since at higher temperatures the gold compound shows signs of decomposition.

In addition, it has been found to be advantageous in practice if the pH rises to 13.5 during the dissolving of the precipitate (very stable solu-

tions), and if potassium L-cysteinate is used as the cysteinate.

The solutions of gold compounds produced by the above method have the desired properties.

Naturally, this also applies to the corresponding applications, especially those in which the solutions of gold compounds are used as precursors for the production of gold-containing heterogeneous catalysts or as gold electrodeposition baths.

The invention is illustrated by the following example.

3:1 L-cysteine / HAuCl<sub>4</sub> Solution

30.557 g (0.272 mole) of aqueous KOH solution (50%) is weighed into a beaker and diluted with 36 mL of deionized water. 32.956 g (0.272 mole) of L-cysteine is added to this solution in portions. A mildly exothermic reaction occurs. A clear, colorless solution is formed.

43.021 g (0.0906 mole) of HAuCl<sub>4</sub> solution is weighed into a second beaker (400 mL) and brought to a volume of 145 mL. Aqueous KOH solution (10%) is added to the HAuCl<sub>4</sub> solution until the pH of the solution reaches 6.1 (amount consumed = 162 mL). A clear, rust-red solution is formed.

The gold chloride solution is then added in portions to the amino acid salt solution.

The pH falls steadily during this addition. The solution is clear and colorless at first. After about 20 mL of the gold chloride solution has been added, the solution becomes turbid. As more solution is added, a white suspension forms, which turns pale yellow towards the end of the addition.

Since the reaction is exothermic, the solution must be cooled throughout the addition, so that the temperature does not exceed +20°C.

The suspension is then stirred for another 1 1/2 hours. It becomes some-

what lighter but still has a yellowish tinge. The suspension is then washed free of chloride by centrifuging.

After the suspension is chloride-free, aqueous KOH solution (50%) is added until a pH value of 13.5 is established. A golden yellow solution was obtained. Due to the slight turbidity that was still present, the solution was filtered through a cellulose filter.

A clear, golden yellow solution was then obtained, which was poured into a brown glass bottle and tightly sealed.

551.487 g of a Au-amino acid solution was obtained.

The Au content of the solution is 3.16% (Au yield: 97.7%).

The Cl content of the solution is 17 ppm.

The solution remains stable for months.

## CLAIM(S)

1. Method for producing a cyanide-free solution of a gold compound that is suitable for gold electrodeposition baths, by:

(a) reaction of a cysteine and/or cysteinate with tetrachloroauric acid and/or a tetrachloroaurate in a first aqueous medium,

(b) separation of the resulting precipitate from the first aqueous medium, and

(c) dissolving of the precipitate in a second aqueous medium with elevation of the pH to 12.0-14.0.

2. Method in accordance with Claim 1, characterized by the fact that the separated precipitate is washed until it is free of chloride.

3. Method in accordance with Claim 1 or Claim 2, characterized by the fact that the molar ratio of cysteine/cysteinate to the tetrachlorogold compound is 3:1 to 10:1.

4. Method in accordance with any of Claims 1-3, characterized by the fact that the reaction is carried out at a temperature of  $T < +30^{\circ}\text{C}$ .

5. Method in accordance with any of Claims 1-4, characterized by the fact that the pH is raised to 13.5 during the dissolving of the precipitate.

6. Method in accordance with any of Claims 1-5, characterized by the fact that potassium L-cysteinate is used as the cysteinate.

7. Solution of a gold compound produced by a method in accordance with any of Claims 1-6.

8. Use of a solution of a gold compound in accordance with Claim 7 as a precursor for the production of gold-containing heterogeneous catalysts.

9. Use of a solution of a gold compound in accordance with Claim 7 as a gold electrodeposition bath.

10. Use of a method in accordance with any of Claims 1-6 for producing

a solution of a gold compound that is suitable for gold electrodeposition gold baths as a precursor for the production of gold-containing heterogeneous catalysts.

11. Use of a method in accordance with any of Claims 1-6 for producing a solution of a gold compound that is suitable for gold electrodeposition gold baths as a gold electrodeposition bath.



(12) NACH DEM VERTRAG ÜBER DIE INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES  
PATENTWESENS (PCT) VERÖFFENTLICHTE INTERNATIONALE ANMELDUNG

BERICHTIGTE FASSUNG

(19) Weltorganisation für geistiges Eigentum  
Internationales Büro



(43) Internationales Veröffentlichungsdatum  
7. Dezember 2000 (07.12.2000)

PCT

(10) Internationale Veröffentlichungsnummer  
**WO 00/73540 A1**

(51) Internationale Patentklassifikation<sup>7</sup>: **C25D 3/48**

D-61130 Nidderau (DE). **WALTER, Richard** [DE/DE];  
Heideweg 11, D-63755 Alzenau (DE).

(21) Internationales Aktenzeichen: **PCT/EP00/04368**

(22) Internationales Anmeldedatum:  
16. Mai 2000 (16.05.2000)

(74) **Anwalt: HERRGUTH, Jens**; Heraeus Holding GmbH,  
Schutzrechte, Heraeusstrasse 12-14, D-63450 Hanau (DE).

(25) Einreichungssprache: **Deutsch**

(81) **Bestimmungsstaaten (national):** JP, US.

(26) Veröffentlichungssprache: **Deutsch**

(84) **Bestimmungsstaaten (regional):** europäisches Patent (AT,  
BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC,  
NL, PT, SE).

(30) **Angaben zur Priorität:**  
199 24 895.8 ☒ 1. Juni 1999 (01.06.1999) **DE**

**Veröffentlicht:**  
— mit internationalem Recherchenbericht

(71) **Anmelder (für alle Bestimmungsstaaten mit Ausnahme von  
US): W. C. HERAEUS GMBH & CO. KG** [DE/DE]; Her-  
aeusstrasse 12-14, D-63450 Hanau (DE).

(48) **Datum der Veröffentlichung dieser berichtigten  
Fassung:** 13. September 2001

(71) **Anmelder und**

(72) **Erfinder: HOFFACKER, Gerhard** [DE/DE]; Ried-  
strasse 23, D-73553 Alfdorf (DE).

(15) **Informationen zur Berichtigung:**  
siehe PCT Gazette Nr. 37/2001 vom 13. September 2001,  
Section II

(72) **Erfinder; und**

(75) **Erfinder/Anmelder (nur für US): FRANZ, Renate**  
[DE/DE]; Alte Schmidtgasse 3, D-63571 Gelnhausen  
(DE). **REITZ, Ramona** [DE/DE]; Weingartenstrasse 5,

*Zur Erklärung der Zweibuchstaben-Codes, und der anderen  
Abkürzungen wird auf die Erklärungen ("Guidance Notes on  
Codes and Abbreviations") am Anfang jeder regulären Ausgabe  
der PCT-Gazette verwiesen.*

(54) **Title:** METHOD FOR PRODUCING A CYANIDE-FREE SOLUTION OF A GOLD COMPOUND THAT IS SUITABLE  
FOR GALVANIC GOLD BATHS

(54) **Bezeichnung:** VERFAHREN ZUR HERSTELLUNG EINER CYANIDFREIEN, FÜR GALVANISCHE GOLD-BÄDER GE-  
EIGNETEN GOLDVERBINDUNGSLÖSUNG

(57) **Abstract:** The invention relates inter alia to a method for producing a cyanide-free solution of a gold compound that is suitable  
for galvanic gold baths. Said method comprises the following steps: a) reacting a cysteine and/or a cysteinat with a tetrachloroauric  
acid and/or a tetrachloroauric salt in a first aqueous medium; b) separating the resulting precipitate from the first aqueous medium;  
and c) dissolving said precipitate in a second aqueous medium, increasing the pH value to 12.0 to 14.0.

(57) **Zusammenfassung:** Es wird unter anderem ein Verfahren zur Herstellung einer cyanidfreien, für galvanische Gold-Bäder ge-  
eigneten Goldverbindungs-lösung vorgestellt, mit: a) Umsetzung eines Cysteins und/oder Cysteinats mit einer Tetrachlorogoldsäure  
und/oder einem Tetrachlorogoldsalz in einem ersten wäßrigen Medium, b) Abtrennen des erhaltenen Niederschlags vom ersten wäß-  
rigen Medium und c) Lösen des Niederschlags in einem zweiten wäßrigen Medium bei Erhöhung des pH-Wertes auf 12,0 bis 14,0.

WO 00/73540 A1

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**METHOD FOR PRODUCING A CYANIDE-FREE SOLUTION OF A GOLD  
COMPOUND THAT IS SUITABLE FOR GALVANIC GOLD BATHS**

the specification of which (check only one item below)

☒ is attached hereto

☐ was filed as United States application

Serial No. \_

On \_

and was amended

on \_ (if applicable).

☒ was filed as PCT international application

Number PCT/EP00/04368

On May 16, 2000

And was amended under PCT Article 19

On \_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability of the application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

**PRIOR FOREIGN/PCT APPLICATIONS AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. 119:**

Country (if PCT, indicate "PCT")	Application Number	Date of Filing (day, month, year)	Priority Claimed Under 35 U.S.C. 119	
Germany	199 24 895.8	June 01, 1999	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
PCT	PCT/EP00/04368	May 16, 2000	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
			<input type="checkbox"/> YES	<input type="checkbox"/> NO
			<input type="checkbox"/> YES	<input type="checkbox"/> NO
			<input type="checkbox"/> YES	<input type="checkbox"/> NO
			<input type="checkbox"/> YES	<input type="checkbox"/> NO
			<input type="checkbox"/> YES	<input type="checkbox"/> NO

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT UNDER 35 U.S.C. 120:

U.S. APPLICATIONS		STATUS (check one)		
U.S. APPLICATION NUMBER	U.S. FILING DATE	PATENTED	PENDING	ABANDONED
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**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith (*List name and registration number*)  
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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

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DATE	DATE	DATE
SIGNATURE OF INVENTOR 210	SIGNATURE OF INVENTOR 211	SIGNATURE OF INVENTOR 212
DATE	DATE	DATE

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